minute, looking like the ostiola of the *Diatrype*. Asci ·04 × ·004 m.m; sporidia ·008 m.m. long.

Lophium fusisporum. *Cooke.*

Perithecia subsessile, expanded upwards, conchiform, laterally compressed, black, shining, striate. Asci subcylindrical. Sporidia fusiform, multiseptate (about 7) yellowish.—*Lophium mytilinum. Cooke Fungi, Britt. ser. ii.*, 200.

On fir branches and bark.

Sporidia ·05 m.m. long. I have now no doubt that the true *L. mytilinum* has filiform sporidia the length of the ascus, as described in "Handbook." Specimens from Dr. Capron, of Shere, and in Fiedler's "Exsicc." are of this character. Fuckel's No. 762 in my copy is sterile.

DESCRIPTION OF PLATE LXIV.

Fig. 1. Specimen of *Xylaria Scotica*, natural size.
„ 2. Section of portion of club.
„ 3. Ascus and sporidia × 500.
„ 4. Asci and sporidia of *Sphœria ostioloidea* × 500.
„ 5. Asci and sporidia of *Valsa lauro-cerasi* × 500.
„ 6. Ascus and sporidia of *Ascobolus crenulatus*, with free sporidia × 500.
„ 7. Ascus and sporidia of *Ascobolus (Saccobolus) obscurus*, with free sporidia × 500.
„ 8. Threads and spores of a variety of *Helminthosporium echinulatum*, on *Ornithogalum* × 500.
„ 9. Spores of *Badhamia fulvescens* × 500.
„ 10. Ascus and sporidia of *Pezizo Comitessæ* × 500.
„ 11. Spores of *Clasterisporium vermiculatum* × 500.
„ 12. Ascus and sporidia of *Peziza Phillipsii* × 500.
„ 13. Ascus and sporidia of *Helotium scoparium* × 500.
„ 14. Threads and spores of *Verticillium tumorum* × 500.

SOME INDIAN FUNGI.

By M. C. Cooke, M.A.

Septoria Artocarpæ. *Cooke.*

Peritheciis aggregatis in maculis brunneis orbicularibus insidentibus. Sporis minutis lineribus.

On leaves of *Artocarpus integrifolea*. Mysore.

Spots orbicular, brown; perithecia dark brown, flattened, with an apical pore; spores minute, linear, about ·01 min. long.

Diplodia Catappæ. *Cooke.*

Peritheciis globosis, primo tectis, dein erumpentibus; sporis variabilis, demum septatis, atro brunneis, utrinque subnucleatis.

On nuts of *Terminalia Catappa*. Pondicherry (1862).

The perithecia are soon erumpent. Spores very variable in

shape and size, becoming uniseptate and dark brown, at first with a globose nucleus in each cell.

Hendersonia Loniceræ. *Cooke.*

Peritheciis gregariis, minutis, primo tectis, atris; sporis ovatis, oblongisve, brunneis, endochromatis 2-3 divisis.

On twigs of *Lonicera diversifolia.* Saharunpore (Dr. Jameson).

The perithecia are very minute. Spores not constricted at the septa, 2-3 partite.

Pestalozzia palmarum. *Cooke.*

Erumpens, atra, gregaria vel sparsa; pustulis sphæriæformibus; sporis fusiformibus quadriseptatis, pallide fuscis, triaristatis, stipite elongatis, hyalinis.

On dead sprout of cocoa-nut. Bengal (precise locality unknown). Jan., 1870.

Spores ·015 × ·005 m.m., fusiform, with 4-septa, pale brown, the ultimate cells hyaline, crested with three hyaline setæ.

Ustilago pulveracea. *Cooke.*

Pulverulenta, atrobrunnea; sporis globosis, granulatis vel subreticulatis, brunneis.

On male florets of *Zea Mays.* Lahore (Dr. J. L. Stewart).

Pulverulent, occupying the male florets, but very different in habit from *U. Maydis.* Spores globose, brown, rather large, with a granulated epispore, ·015 m.m. diam.

Uromyces heterogenis. *Cooke.*

Hypophylla. Soris dense aggregatis in maculis suborbicularibus, purpureo-brunneis; pseudosporis subglobosis, ovatis, obovatis, vel pyriformibus, variabilis, pallide fuscis, longe pedicellatis.

On leaves of *Hibiscus.* Kolapore, Bombay (Col. Julian Hobson).

The sori are densely aggregated in suborbicular patches, of a dark purplish-brown colour. Pseudospores very variable, subglobose, ovate or pear-shaped, ·01-·02 × ·017-·03 m.m., on very long slender peduncles ·06 m.m. long.

Uromyces sphæropleum. *Cooke.*

Hypophylla. Soris parvis, sparsis, orbicularibus, atro-brunneis; pseudosporis globosis, subopacis, longe pedicellatis.

On leaves, apparently of *Ononis.* Kolapore, Bombay (Col. Julian Hobson).

The sori are minute and scattered; pseudospores globose, rather opaque, dark brown, ·017-·022 m.m. diam., on long slender pedicels, ·05 m.m. long. The dark globose opaque spores are very peculiar, resembling those of *Pileolaria.*

Uromyces Hobsoni. *Vyse.*

Caulicola. Soris irregularibus, in tuberculis magnis, sclerotiformibus collectis, rubro-brunneis; pseudosporis compactis, oblongis, longe pedicellatis.—*Rev. J. E. Vize, in litt.*

On stems of *Jasminum.* Kolapore, Bombay (Col. Julian Hobson).

Forming compact bullate pustules on the stems, with the appear-

ance of reddish-brown sclerotia; pseudospores compact, oblong, brown, on long hyaline pedicels.

Puccinia Kurdistani. *Cooke.*

Hypophylla. Soris in maculis suborbicularibus, aggregatis; pseudosporis magnis, elongato-ellipticis, leniter constrictis, fuscis, breviter pedicellatis.

On *Taraxacum glaucum.* Koordistan.

Sori collected in suborbicular spots in a manner similar to those of *P. glomerata;* pseudospores large, elongated, elliptical, slightly constricted at the septum, brown, ·05 × ·025, much larger than in *P. glomerata*, *P. chondrillæ* and allied species.

Puccinia rostrata. *Cooke.*

Published in "Grevillea" iii., p. 75, under the name of *P. cruciferarum;* but as that was previously appropriated by Rudolphi, the present name must be substituted.

On *Cruciferæ.* Himalayas.

Hemileia vastatrix. *B. & Br.* "Gardener's Chronicle," Nov. 6, 1869, with fig.

On coffee leaves. Mysore.

This pest was first described from specimens communicated from Ceylon. Although less destructive to the coffee plantations in Mysore, it has now established itself on the Continent of India.

Isaria stellata. *Cooke.*

Nivea, stellata, incrustans. Floccis tenuissimis, circinatis.

Encrusting dead insects attached to the under surface of mango leaves. Mysore.

Snow white, encrusting minute insects, and assuming the appearance of stellate bodies, about 1 line in width. Threads very delicate circinate, sigmoid or variedly curved. (Spores not seen.)

Pellicularia. *Gen. Nov.*

Parasitica. Floccis repentibus ramosis, septatis, in pelliculam sub-gelatinosam intertextis. Sporis sessilibus, simplicibus, hyalinis.

Hab. On living plants.

Pellicularia koleroga. *Cooke.*

Hypophylla, effusa, griseo-alba, sporis globosis, hyalinis, echinulatis.

On under surface of leaves of *Coffea arabica.* Mysore.

Effused in large greyish white patches, sometimes nearly covering the under surface of the leaves; threads creeping, branched, septate, interwoven into a subgelatinous pellicle, which can be stripped from the leaf when moist. Spores sessile, scattered over the threads, globose, hyaline, echinulate ·0075 m.m. diam. Very destructive in coffee plantations, where it is known under the name of "Kole-roga," or black rot. Probably allied to *Amphiblistrum.* Corda.

Clasterisporium maculatum. *Cooke.*

Epiphylla. Maculis orbicularibus, velutinis ; sporis fasciculatis, arcte clavatis, ad basim attenuatis, supra atro-brunneis, inferne hyalinis, multiseptatis.

On leaves of *Ficus cordifolia.* Kolapore, Bombay (Col. Julian Hobson).

Forming orbicular spots $\frac{1}{4}$ inch broad. Spores fasciculate, narrowly clavate, ·08 × ·006 m.m., dark brown above, hyaline below, seated on the creeping mycelium, with from 7-9 septa, which at length become obscure. Clearly congeneric with *Clasterisporium caricinum*, Schw.

Glenospora didyma. *Cooke.*

Epiphylla. Maculis atris, irregularibus, subconfluentibus ; floccis repentibus, ramosis, divaricatis, lateraliter papillatis ; sporis ellipticis, brunneis, endochromate bipartitis.

On fading leaves of some undetermined plant. Kolapore, Bombay (Col. Julian Hobson).

Forming irregular black patches on the upper surface of the leaves. Threads creeping, brown, branched, divaricate, with lateral papillæ, to which the spores are attached ; spores elliptical, ·016-·018 × ·009 m.m., brown ; endochrome bipartite.

In the original diagnosis of this genus the spores are characterized as globose ; but the Rev. M. J. Berkeley does not regard this as an essential character of his genus, which will have to be modified accordingly, as all the features of the present species indicate its close affinity with *Glenospora melioloides*, B. & Curt. ; even to the curious discoid bodies composed of radiating flocci, the relation of which to the creeping threads has not yet been accurately determined. Probably they are the early stages of the sporiferous threads.

Dothidea perisporioides. *Berk. & Curt.* "North American Fungi," *Grevillea* iv.

On leaves of some leguminous plant. Bombay (Col. Julian Hobson).

Sporidia brown, uniseptate, constricted, each extremity attenuated.

Chætomium Indicum. *Corda.*

On paper. Burmah.

Eurotium herbariorum. *Link.*

Common, on various substances. Bengal. Chittagong. Burmah.

Capnodium mangiferum. *C. & Broome.*

Effusum, velutinum; peridiis ovatis pyriformibus vel lageniformibus ; sporidiis arcte ellipticis, hyalinis, uniseptatis.

On leaves of *Mangifera Indica.* Mysore.

Effused, forming a velvety stratum on both surfaces of the leaves. Peridia ovate or pear-shaped, or flask-shaped ·075-·08 m.m. long ; sporidia hyaline, uniseptate about ·0125-·015 m.m. long.

DESCRIPTION OF PLATE LXIII.

Fig. 1. Threads and spores of *Pellicularia Koleroga* × 500.
„ 2. Portion of thread and spores further magnified.
„ 3. Pseudospores of *Uromyces sphæropleum* × 500.
„ 4. Pseudospores of *Uromyces heterogenum* × 500.
„ 5. Spores of *Ustilago pulveracea* × 500.
„ 6. Pseudospores of *Puccinia Kurdistani* × 500.
„ 7. Pseudospores of *Puccinia rostrata* × 500.
„ 8. Portion of stem with sori of *Uromyces Hobsoni*.
„ 9. Pseudospores of *Uromyces Hobsoni* × 500.
„ 10. Spores of *Clasterisporium maculatum* × 500.
„ 11. Threads and spores of *Glenospora didyma* × 500.
„ 12. Discoid body accompanying the threads of *Glenospora* × 500.
„ 13. Conidia and peridium of *Capnodium Mangiferum* × 500.
„ 14. Asci and sporidia of same × 500.
„ 15. Free sporidia of *Capnodium mangiferum* × 500.

NEW AND RARE BRITISH FUNGI.

By Wm. Phillips and Charles B. Plowright.

[*Continued from Vol. III., p.* 126, *with plate* 62.]

31. **Hygrophorus mucronellus.** *Fr. Hymen. Europ. p.* 418. *Fr. Ep. p.* 331.

Fragile, pileus submembranaceus, conico-campanulate, acute, smooth, bright-red, becoming pale, stem fistulose, thin fibrous, somewhat silky, base white, gills decurrent, triangular, thick, yellow.

In a grass field by the sea bank. Kings Lynn. Dec., 1875, in company with *H. russo-coriaceus*. Probably not uncommon.

32. **Paxillus paradoxus.** (*Kalchb.*) *Berk. Kalchb. Fung. Hung. t.* 16, *fig.* 1.

Spores ·0006 × ·0002 in., with a nucleus at each end.

The Rev. M. J. Berkeley considers this a *Paxillus*. Wrekin, Salop, Sept., 1875.

* **Sistotrema confluens.** *Pers.*

A curious and interesting form of this plant occurred at Hereford this year, it was for the most part stemless, incrusting sticks, leaves, fragments of earth, etc., extending into the holes made by the burrowing of some animal, either a mole or a rat, some of the best developed specimens growing subterraneously upon the roof of the burrows.

33. **Stereum pini.** *Fr. Hymen. Europ. p.* 643. *Fr. Ep. p.* 553.

Resupinate coriaceo-cartilaginous peltato-adnate submarginate, smooth beneath, pallid, at length bullate, hymenium purple, flesh-coloured, then brownish, pruinose.

Growing upon the under side of dead branches of *Pinus*